

METHOD FOR EMBEDDING A COMPONENT IN A BASE AND FORMING ACONTACT

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The present invention relates to a method for embedding one or more components in a  
5 base and for forming contacts in them.

The bases that are processed using the methods to which the present invention relates are  
used as bases for electrical components, typically semiconductor components and  
particularly microcircuits, in electronic products. The task of the base is to provide a  
10 mechanical attachment base for the components and the necessary electrical connections  
to the other components on the base and outside the base. The base can be a circuit  
board, so that the method that is the object of the invention is closely related to circuit-  
board manufacturing technology. The base can also be some other base, for example, a  
base used for packaging a component or components, or the base of an entire functional  
15 module.

Circuit-board manufacturing technologies differ from microcircuit manufacture in,  
among other things, the fact that the substrate used in microcircuit manufacturing  
technologies is a semiconductor material, whereas the base material of a circuit board is  
20 an insulator. Microcircuit manufacturing technologies are also typically considerably  
more expensive than circuit-board manufacturing technologies.

Circuit-board manufacturing technologies differ from packaging techniques in that  
packaging techniques are intended to form a package around a semiconductor  
25 component, which will facilitate its handling. The surface of a package of a  
semiconductor component has contact parts, typically protrusions, which allow the  
packaged component to be easily installed on a circuit board. A semiconductor package  
also contains conductors, through which voltage can be connected to the actual  
semiconductor, connecting the protruding contact parts outside the package to the  
30 contact areas on the surface of the semiconductor component.

However, the packages of components manufactured using conventional technologies  
take up a considerable amount of space. The miniaturization of electronic devices has